

Application No. 09/756,140
Art Unit 1755
February 18, 2004
Reply to Office Action of August 26, 2003

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the present application.

Listing of Claims:

1. (**Currently Amended**) An abrasive for metal comprising an oxidizing agent, water and a polymer particle having a functional group that traps a metal ion, wherein the functional group that traps a metal ion is at least one selected from the group consisting of ~~OH, COOM, >C=O, O, COOR, CONH₂, NO, NO₂, >N-O, SO₃M, PHO(OM), PO(OM)₂, AsO(OM)₂, N=N, >C=N, >C=N-OH, >C=NH, SCN, SH, S, >C=S, COSM, CSSM, CSNH₂, NCS, >P, >As, SeH, >S-Se, CSeSeM, amino alcohol, aminophosphonic acid and iminodiacetic acid, wherein M represents a hydrogen, an alkali metal, an alkaline earth metal or an ammonium group and R represents a hydrocarbon.~~ acid.

2-3. (**Canceled**)

4. (**Original**) The abrasive for metal according to claim 1, wherein the particle having a functional group is a particle comprising an ion exchange resin.

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5. **(Previously Presented)** The abrasive for metal according to claim 1, wherein the particle having a functional group that traps a metal ion is a particle comprising an ion exchange resin, and the average particle diameter of the particle is 1.0 μm or less.

6. **(Original)** The abrasive for metal according to claim 1, wherein the particle having a functional group is a particle comprising a chelate resin.

7. **(Original)** The abrasive for metal according to claim 1, wherein the particle having a functional group is a particle comprising a chelate resin, and the average particle diameter of the particle is 1.0 μm or less.

8. **(Original)** A process for producing the abrasive for metal according to claim 5, wherein the process comprises wet-milling an ion exchange resin.

9. **(Previously Presented)** A process for producing the abrasive for metal according to claim 5, wherein the process comprises dry-milling and then wet-milling an ion exchange resin.

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10. **(Original)** The process for producing the abrasive for metal according to claim 7, wherein the process comprises wet-milling chelate resin.

11. **(Previously Presented)** The abrasive for metal according to claim 1, wherein the metal is copper or copper alloy.

12. **(Original)** A polishing composition for metal comprising an abrasive for metal according to claim 1, an oxidizing agent and water.

13. **(Previously Presented)** The polishing composition for metal according to claim 12, wherein the metal is copper or copper alloy.

14. **(Original)** The polishing composition for metal according to claim 12, wherein the oxidizing agent is hydrogen peroxide.

15. **(Original)** The polishing composition for metal according to claim 12, wherein the composition further comprises at least one selected from the group consisting of a spherical particle, benzotriazole and a benzotriazole derivative.

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16. **(Original)** A process for polishing a metal by chemical mechanical polishing, wherein the process is conducted by using the polishing composition for metal according to claim 12.

17. **(Previously Presented)** The process according to claim 16, wherein the metal is copper or copper alloy.

18. **(Previously Presented)** The abrasive for metal according to claim 1, wherein said particle having a functional group is a particle comprising a cation exchange resin.

19. **(Previously Presented)** The abrasive for metal according to claim 1, wherein said particle having a functional group is a particle comprising an anion exchange resin.